

**THE GENUS *MILIUSA* LESCHEN. EX A. DC.
(ANNONACEAE) IN AUSTRALIA**

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Summary

Three species of *Miliusa* Leschen. ex A. DC. occur in Australia, viz *M. horsfieldii*, *M. brahei* and *M. traceyi* which is described as new.

The genus *Miliusa* Leschen. ex A. DC. with about 40-50 species is treated here in a broad sense to include the genus *Saccopetalum* Bennett following Baillon (1871). Although recognition of *Saccopetalum* as a separate genus has persisted well into this century e.g. Kostermans (1952), Hutchinson (1964), the majority of authors have accepted the broader concept of *Miliusa*, e.g. Ast (1938), Sinclair (1955), Fries (1959). Pollen-morphology studies of Walker (1971) provide additional support for inclusion of *Saccopetalum* in *Miliusa*.

The rather arbitrary division of *Miliusa* by Finet and Gagnepain (1907) into two sections based on ovule number is not accepted here in view of the variation in the number of ovules found even in carpels of the one flower.

Measurements of flowers and fruit in this account are taken from material preserved in spirit.

MILIUSA

Miliusa Leschen. ex A. DC., Mem. Soc. Phys. Geneve 5: 213 (1832). **Type:** *Miliusa indica* Leschen. ex A. DC.

Saccopetalum Bennett, Pl. jav. rar. 165 (1840). **Type:** *Saccopetalum horsfieldii* Bennett

Trees, usually deciduous in the dry season and with axillary buds protected by scales. New leaves developing with or shortly after the flowers. Flowers mostly hermaphrodite, solitary or in twos or threes or in cymose fascicles terminating short axillary shoots, usually from axils of previous years' leaves; an axillary bud of a leaf or bract below the flowers frequently growing on to become a leafy shoot. Sepals 3, free, valvate. Outer petals 3, sepaloid, valvate. Inner petals 3, valvate, much larger than sepals and outer petals, saccate to various degrees near the base, frequently remaining lightly coherent near the base until falling separately after anthesis. Torus nearly spherical, usually pilose between stamens and carpels. Stamens few or numerous, sometimes a few outer ones considerably smaller than inner ones; anthers on short broad filaments, connective shortly produced above the anther cells but not concealing them. Ovaries \pm flask-shaped, the peripheral ones deformed and incurved at apex. Stigmas usually capitate, sessile. Ovules few or many, biserially superposed. Monocarps ovoid or globose, 1- to several-seeded. Seeds transverse, ellipsoid with a longitudinal groove.

Distribution: The genus is distributed through India, Sri Lanka, Burma, Indo-China, Malesia and Australia.

Key to Species

1. Inner petals mostly 30-38 mm long. Pedicels at flowering usually <15 mm long. Monocarps 15-35 mm \times 15-20 mm **1. *M. horsfieldii***
- Inner petals mostly 13-16 mm long. Pedicels at flowering usually > 15 mm long. Monocarps 9-18 mm \times 10-14 mm 2
2. Inner petals ovate, 6-8 mm wide. Stamens about 36. Ovaries about 26 **2. *M. brahei***
- Inner petals oblong-ovate, acute, 4-5 mm wide. Stamens about 12. Ovaries about 12 **3. *M. traceyi***

1. *Milium horsfieldii* (Bennett) Baillon ex Pierre, Fl. forest. Cochinch. sub pl. 38 (1881).

Saccopetalum horsfieldii Bennett, Pl. jav. rar. 165, pl. 35 (1840). Type: province of Banyumas, Java, in 1814, *T. Horsfield* (holo: BM) not seen, fotogr. BRI.

Tree to 30 m high and 60 cm d.b.h., sometimes with a fluted stem. Outer bark flaky, grey-brown. Shoots densely covered with antrorse shining slightly tortuous pale brown hairs, glabrescent. Leaf lamina lanceolate or oblanceolate, acuminate or acute, sometimes with a rounded tip, 4–14(–22) cm × 2.5–4(–6) cm, glabrescent except for hairs persisting along midvein on adaxial surface, base obtuse or rounded, slightly asymmetric; midvein shallowly channelled above; secondary veins mostly 6–9 pairs, not prominent; tertiary venation reticulate, inconspicuous. Petiole 2–4 mm long, with persistent hairs. Flowers solitary or in pairs; pedicels 5–15 mm long at anthesis, pubescent and with vestigial submedial bract. Sepals ovate, 4–5 mm × ca 2 mm, pubescent outside and inside, acuminate, truncate at base, margins incurved. Outer petals narrowly ovate to oblong-ovate, 5–6 mm × 1–1.5 mm, pubescent outside and inside, acute with a rounded tip, margins incurved. Inner petals lanceolate, broadly saccate, 30–42 mm × 12–18 mm, with margins recurved and apex twisted, puberulent outside, more densely so inside near apex but glabrous towards base and along centre line, bearing 10–12 longitudinal veins connected throughout their length by a reticulum of finer veins, the midvein inside corresponding with a central glabrous stripe with a verruculate surface that widens towards and stops at the base of the pouch. From the base of the pouch the petal narrows to a 2.5–3 mm wide claw that is smooth to slightly ridged on the inside. Central stripe and base of pouch inside red, elsewhere green or yellow-green mottled with red. Stamens ca 48, 1.2–1.3 mm long, outwardly and upwardly curved. Carpels ca 23. Ovaries slightly curved, bearing a few scattered hairs and blotched with red-brown pigment. Stigma capitate, sometimes with a few hairs. Ovules mostly 6–8, occasionally 2, 4 or 10. Ripe monocarpis ellipsoid or subglobular, 20–35 mm × 17–20 mm, on stipes 10–20 mm long. Seeds usually 2–5; testa smooth. Figs 1 & 2.

Specimens examined: W Java. Bantam, near waterfall (Bitung) of Tjidanau near Lake Oanau, July 1961, *Kostermans* 19012 (BRI). (Distributed as *Polyalthia* sp.). Queensland. COOK DISTRICT: Lockerbie Scrub, Bamaga, 10°45'S, 143°30'E, Sep 1974, *Webb & Tracey* 13365 (BRI); Chili Beach track off Portland Road, 12°39'S, 145°23'E, Nov 1986, *Jessup* 773 (BRI); Gordon Creek, Iron Range, 12°45'S, 143°15'E, Aug 1972, *Irvine* 238 (BRI, QRS); Claudie River, 12°45'S, 143°15'E, Oct 1972, *Dockrill* 544 (BRI, QRS); ditto, *Hyland* 6408 (BRI, QRS); ditto, Jan 1973, *Hyland* 6640 (BRI, QRS); 12°4'S, 143°1'E, Oct 1968, *Webb & Tracey* 8317 (BRI); Quintil Creek, Lockhart River Aboriginal Reserve, 12°50'S, 143°22'E, Nov 1977, *Webb & Tracey* 13363 (BRI); T.R. 14 Massy, 13°54'S, 143°25'E, Nov 1980, *Hyland* 10852 (BRI, QRS); Rocky River, 13°55'S, 143°30'E, Sep 1971, *Hyland* 2544 R.F.K. (BRI, QRS); Mt Webb near Starke Station Homestead, 15°03'S, 145°05'E, Aug 1974, *Webb & Tracey* 13361 (BRI); McIvor River, 15°07'S, 145°08'E, in 1962, *Webb & Tracey* 7788 (BRI); ditto, Jul 1976, *Webb & Tracey* 13366 (BRI); 15°10'S, 145°05'E, Nov 1972, *Hyland* 6563 (BRI, QRS); between Starke Station and Hopevale, 15°12'S, 145°08'E, Aug 1974, *Webb & Tracey* 13362 (BRI); between McIvor River and Hopevale, 15°13'S, 145°08'E, Jul 1976, *Webb & Tracey* 13364 (BRI); Carol Creek crossing on Cooktown–Hopevale road, 15°17'S, 145°05'E, Aug 1976, *Webb & Tracey* 12686 (BRI); Carol Creek road crossing, NW of Hopevale Mission, 15°17'S, 145°04'E, Dec 1984, *Jessup* 644 (BO, BRI, CAL, CBG, IBSC, SAN, U, W); 1/2 mile [0.8km] W of Cedar Bay, May 1969, *Webb & Tracey* AQ 210485 (BRI); Gap Creek between Ayton and Rossville on C.R.E.B. road, May 1969, *Webb & Tracey* 8729 (BRI); Shipton's Flat on Tin Mine Road, 15°45'S, 145°10'E, May 1969, *Smith* 14369 (BRI); Shipton's Flat between Rossville and Mt Finnigan, May 1969, *Webb & Tracey* 9018 (BRI); near sawmill at Ayton, Bloomfield River area, 15°56'S, 145°26'E, May 1969, *Webb & Tracey* 8810 (BRI); Bloomfield River, no date, *Webb & Tracey* 7735 (BRI); Bloomfield, 15°57'S, 145°20'E, Dec 1982, *Sankowsky* 226 & *Sankowsky* (BRI); ditto, 227 (BRI); near China Camp on road north to Bloomfield River, 15°58'S, 145°12'E, Jun 1973, *Webb & Tracey* 13347 (BRI); Chapman's Corner, W catchment of Bloomfield River, 15°59'S, 145°16'E, Dec 1984, *Jessup* 656 (BRI); Headwaters of Woobadda River on Cape Tribulation to Bloomfield road, 15°59'S, 145°24'E, Nov 1984, *Jessup* 622 (A, BRI, CANB, DNA, K, L, MEL, MO, NSW, QRS, U); Timber Camp Road, on road between Daintree and Bloomfield River via China Camp, 16°01'S, 145°20'E, Aug 1972, *Webb & Tracey* 12058 (BRI); near Donovan Creek, approx 3 km N of Emmagen Creek on Cape Tribulation to Bloomfield road, 16°01'S, 145°26'E, Nov 1984, *Jessup* 616 (BRI); T.R. 165, Baird L.A. (Timbercamp Creek), 16°02'S, 145°16'E, Sep 1980, *Hyland* 10672 (BRI, QRS); Brinsmead Road, near Cairns, 16°55'S, 145°43'E, Dec 1977, *Webb & Tracey* 13735 (BRI).

Habitat and Distribution: This species occurs as a canopy tree mostly in semideciduous mesophyll vine forest to a dry form of complex notophyll vine forest on various soil types but most frequently on riverine alluvia. It has been recorded from Java and Queensland where it is distributed from Lockerbie Scrub, Cape York Peninsula, to Cairns.

Affinities: There appears to be some similarity with *M. longiflora* (J.D. Hook. & Thomson) James Sincl. from India but analysis of this postulated relationship is beyond the scope of this paper.

Notes: The Australian material on which the above description is based extends the hitherto known variability of the species. It is not considered sufficient variation to warrant formal taxonomic recognition. In the following table dimensions for the Javanese material are taken from Backer and Bakhuizen van den Brink (1963).



Fig. 1. *Miliusa horsfieldii*: A. branchlet with flowers and partly expanded leaves $\times 1$. B. monocarps $\times 1$. *M. brahei*: C. branchlet with flowers and partly expanded leaves $\times 1$. D. monocarps $\times 1$. *M. traceyi*: E. branchlet with monocarps $\times 1$. A Jessup 622; B Hyland 6640; C Young 437; D Perry s.n. May 1986; E Jessup 820.

| | Java | Australia |
|--------------|-------------------------------|-------------------------------|
| petiole | 2.5–5 mm long | 2–4 mm long |
| pedicel | 10–35 mm long | 5–15 mm long |
| sepals | ovate, acute, 2–4 mm long | ovate, acuminate, 4–5 mm long |
| outer petals | “slightly longer than sepals” | 5–6 mm long |
| inner petals | 25–45 mm × 10–25 mm | 30–42 mm × 12–18 mm |

2. *Miliusa brahei* (F. Muell.) Jessup, *Austrobaileya* 2(3): 227 (1986).

Saccopetalum brahei F. Muell., *Fragm.* 8: 159 (1874). **Type:** near Port Denison, Qld, *E. Fitzalan* (holo: MEL; iso: BRI,K,NSW)

Tree to 15 m high and 40 cm d.b.h. Outer bark flaky, dark grey-brown. Shoots with antrorse shining pale brown hairs, glabrescent. Leaf lamina elliptic or ovate, acute or acuminate, rarely obtuse, 4–12(–14) cm × 1.5–4(–5) cm, glabrescent except for semi-erect hairs frequently persisting along midvein on abaxial surface, base acute or obtuse to rounded; midvein slightly raised above; secondary veins mostly 7–10 pairs, thin and inconspicuous; tertiary venation reticulate, inconspicuous. Petiole 1–3 mm long with persistent hairs. Flowers solitary or two together developing sequentially. Leafy axis below the flowers proximally adherent to peduncle for about 2 mm. Pedicels 30–60 mm long at anthesis, sparsely puberulent and usually with a vestigial bract *ca* 10 mm above the articulation. Sepals ovate, 1.7–2 mm long, pubescent outside, glabrous inside. Outer petals narrowly boat-shaped, 2.8–3 mm × 0.3–0.4 mm, pubescent outside and inside. Inner petals ovate, 13–15 mm × 6–8 mm, glabrescent outside, glabrous inside, puberulent along margins, yellow-green with a central red stripe inside which widens at the supra-basal pouch; margins and apices recurved; pouch *ca* 5 mm wide. Stamens *ca* 36, 0.7–1 mm long, outwardly and upwardly curved; connective slightly produced above the anthers. Ovaries *ca* 26, slightly curved, bearing a few scattered appressed hairs. Stigma capitate, minutely papillose and covered in a gelatinous exudate. Ovules 4–6. Ripe monocarps subglobular-ellipsoid, 10–18 mm × 10–14 mm, on stipes 5–15 mm long, deep purple when ripe. Seeds in 2 rows; testa almost smooth. **Figs 1 & 2.**

Specimens examined: **Western Australia.** WEST KIMBERLEY: Eastern Walcott Inlet, 4 km S of junction of Neville Creek and Calder River, 16°21'S, 124°58'E, May 1983, *Kenneally* 8748 (BRI); 2 km E of junction of Charnley and Calder Rivers, 16°23'S, 124°59'E, May 1983, *Milewski* 96 (BRI). **Northern Territory.** Melville Island, May 1966, *Stocker* AQ210576 (BRI); Banjo Jungle, Snake Bay, Melville Island, 11°28'S, 130°32'E, May 1978, *Tracey* 14056 (BRI,DNA,QRS); Ginger Palmer's Camp, Fright Point, E of Darwin, 12°12'S, 130°55'E, May 1978, *Webb & Tracey* 12475 (BRI); Casuarina, Darwin, 12°18'S, 130°55'E, Dec 1973, *Parker* 312 (DNA); Lee Point, 12°21'S, 130°54'E, Sep 1984, *Wightman* 1668 (BRI,CANB); Buffalo Creek, Darwin, 12°21'S, 130°55'E, Sep 1974, *Dunlop* 3632 (BRI,DNA); Mindi Beach, Darwin, 12°26'S, 130°50'E, Sep 1984, *Wightman* 1674 (BRI,CANB,DNA); Mar 1971, *Byrnes* 2088 (DNA); near Darwin, Jun 1963, *Webb* AQ210559 (BRI); Woolner, Whitestone Creek, 12°30'S, 131°28'E, Nov 1978, *Cousins* 158 (DNA,BRI); Whitestone Creek, 2 km W of Woolner Road, 12°32'S, 131°28'E, Oct 1978, *Rankin* 1515 (BRI,DNA); ditto, 1517 (DNA); Rum Jungle, 13°00'S, 131°00'E, Nov 1973, *Forster* (DNA); Home Hill on Woolaning–Channel Point road, N of Daly River, 13°05'S, 130°20'E, May 1978, *Tracey* 14042 (BRI); 13°15'S, 130°10'E, May 1978, *Webb & Tracey* 12753 (BRI); Home Hill, Wagait Reserve, Nov 1972, *Hearne* 278 (DNA); S of “Bushman's Camp”, N of Channel Point, N of Daly River, 13°12'S, 129°58'E, May 1978, *Webb & Tracey* 12876 (BRI); 13°15'S, 129°58'E, *Webb & Tracey* 12750 (BRI); Buffalo Creek, 13°21'S, 130°54'E Sep 1984, *Brock* AQ421016 (BRI). **Queensland.** COOK DISTRICT: Iron Range, 12°39'S, 143°22'E, Oct 1983, *Sankowsky* 269 & *Sankowsky* (BRI); Chili Beach track off Portland Road, 12°39'S, 143°23'E, Nov 1986, *Jessup* 772 (BRI); Dowlings Hill on Mt Amos road, S of Cooktown, 15°38'S, 145°18'E, Jun 1973, *Webb & Tracey* 11884 (BRI); approx 1 km S of village at 4 Mile Beach, S of Port Douglas, 16°32'S, 145°28'E, Dec 1982, *Jessup* 551 (BRI,CAL,IBSC,L,MO,U,PERTH). **NORTH KENNEDY DISTRICT:** Port Denison, no date, *Fitzalan* AQ332779 (BRI,K,MEL,NSW); Airlie Beach, 20°17'S, 148°44'E, Nov 1981, *Young* 437 (BRI,K,L,PERTH,U); Shute Harbour near Proserpine, in 1962, *Webb & Tracey* 7965 (BRI). **SOUTH KENNEDY DISTRICT:** Orchid Valley, 20°30'S, 148°50'E, May 1986, *Perry* (BRI); Cape Hillsborough, 20°55'S, 149°00'E, Mar 1976, *Schultz* 177 (QRS); Turtle Bay, Carlisle Island, 35 km N of Mackay, 20°47'S, 149°17'E, Sep 1986, *Sharpe* 4409 & *Batianoff* (BRI).

Habitat and Distribution: This species is found associated with several types of rainforest but most commonly in semi-evergreen and semideciduous notophyll vine forest on a variety of soil types but frequently on alluvia and coastal sand. It is distributed from the Kimberley District, Western Australia (tentative determination as no fertile specimens have been seen), NE Northern Territory and NE Queensland south to the vicinity of Mackay.

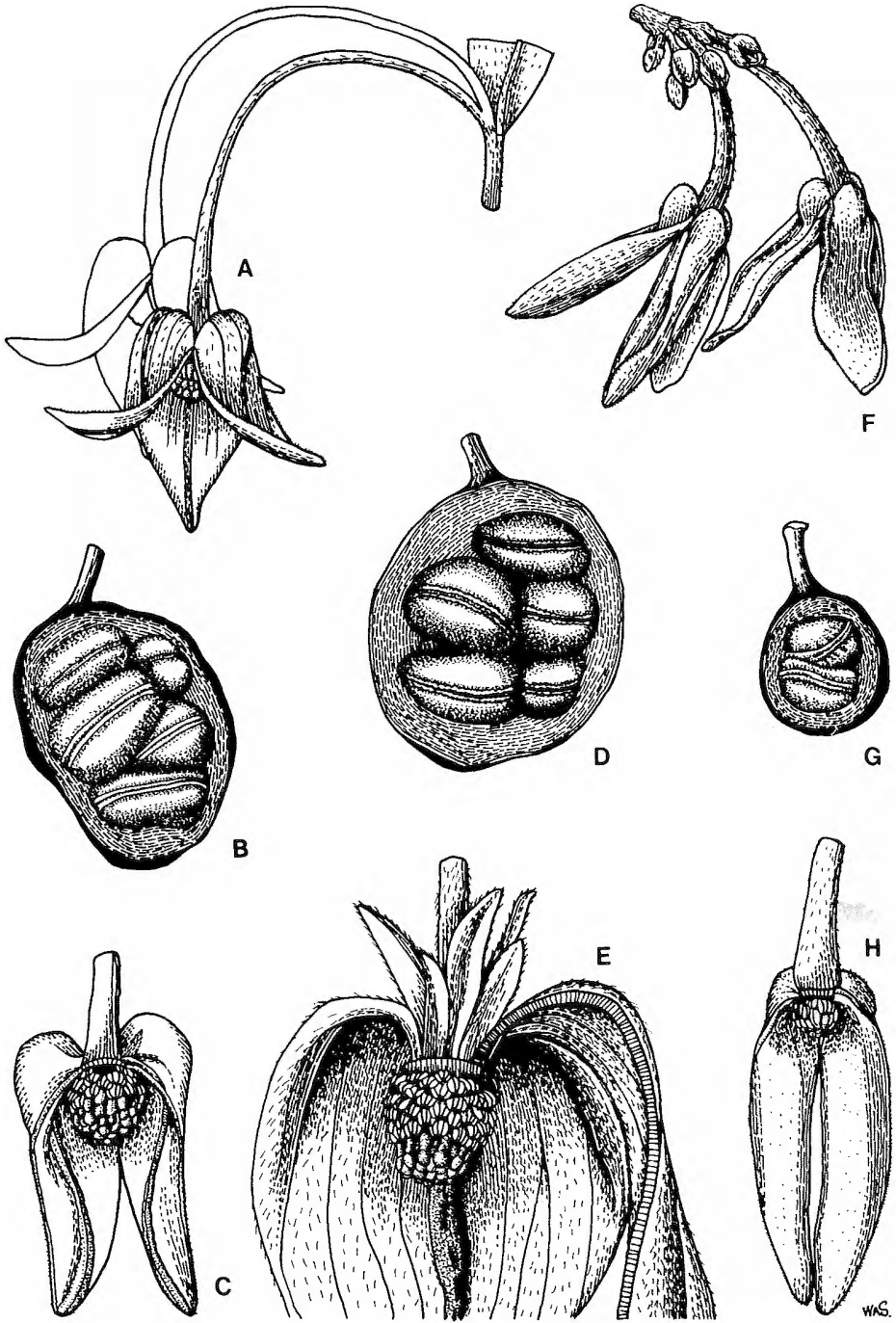


Fig. 2. *Miliusa brahei*: A. flowers $\times 2$. B. L.S. monocarp, seeds uncut $\times 2$. C. flower with 1 inner petal removed $\times 3$. *M. horsfieldii*: D. L.S. monocarp, seeds uncut $\times 2$. E. flower with 1 inner petal removed and 1 cut longitudinally $\times 3$. *M. traceyi*: F. flowers $\times 2$. G. L.S. monocarp, seeds uncut $\times 2$. H. flower with 1 inner petal removed $\times 3$. A,C Jessup 551; B Perry s.n. May 1986; D Hyland 6640; E Jessup 622; F,H Hyland 10927; G Jessup 820.

Affinities: This species has apparently some affinity with *M. koolsii* (Kosterm.) James Sincl. from New Guinea but that species has much smaller flowers although the pedicels are of comparable length. *M. vidalii* James Sincl. from the Philippines is possibly also related.

3. *Miliusa traceyi* Jessup, sp. nov.

Arbor usque 12 m alta. Innovationes pilis adpressis et semierectis nitidis pallido-brunneis obsitae. Lamina ovata vel elliptica, obtusa vel rotundata interdum acuta vel leviter acuminata, 4–10(–13) cm longa et 2–7 cm lata, supra puberulenta infra pubescentia, glabrescentia. Lamina basi obtusa vel rotundata raro leviter cordata. Petiolus 1–4 mm longus, pilis paucis persistentibus obsitus. Flores in fasciculis alii post alios vel duo simul maturescentes. Pedicelli 15–30 mm longi pubescentes. Sepala ovata, 2–2.7 mm longa et 1.5–1.8 mm lata, exter pubescentia, intra glabra. Petala exteriora oblongo-ovata naviculiformia 2.5–3 mm longa et 0.8–1 mm lata, exter et intra pubescentia. Sepala et petala exteriora ante anthesin cadentia. Petala interiora oblongo-ovata, 13–16 mm longa et 4–6 mm lata, exter sparse pubescentia intra sparse puberulenta; margines dense puberulenti recurvi; saccus supra-basalis 2.5–3 mm latus. Stamina circa 12, octo interiora 0.7–0.8 mm longa quatuor exteriora parviora. Ovaria plerumque 11 vel 12, glabra, intrinsecus curva. Stigma capitatum. Ovula 2 vel 3. Monocarpia matura subglobula 9–15 mm longa et 10–14 mm lata, rubra; stipites 5–7 mm longi. Semina 1 vel 2. **Typus:** Queensland. COOK DISTRICT: Massy Creek, 13°55'S, 143°33'E, 14 November 1980, *Hyland* 10927 (holo: BRI; iso: QRS)

Tree to 12 m high and 20 cm d.b.h. Outer bark finely fissured, light brown. Shoots with appressed and semi-erect, shining, pale brown hairs, glabrescent. Leaf lamina ovate or elliptic, obtuse or rounded, sometimes acute or slightly acuminate, 4–10(–13) cm × 2–5(–6.5) cm, puberulent with semi-erect hairs on adaxial surface, pubescent below, glabrescent, base obtuse or rounded, rarely slightly cordate; midvein flat or slightly raised above; secondary veins mostly 6–8 pairs, thin and inconspicuous, frequently with intersecondary veins. Tertiary venation reticulate. Petiole 1–4 mm long with a few persistent hairs. Flowers in fascicles, only 1 or 2 maturing at one time, the remaining buds usually aborting if fertilization is successful. Pedicels 15–30 mm long at anthesis, pubescent, with a basal articulation; submedial bract usually absent. Sepals ovate, 2–2.7 mm × 1.5–1.8 mm, pubescent outside, glabrous inside. Outer petals oblong-ovate, boat-shaped, 2.5–3 mm × 0.8–1 mm, pubescent outside and inside. Sepals and outer petals falling before anthesis. Inner petals oblong-ovate, acute, 13–16 mm × 4–6 mm, sparsely pubescent outside, sparsely puberulent inside, more densely so along margins, green or greenish yellow; margins recurved; sub-basal pouch 2.5–3 mm wide. Stamens ca 12; usually 8 inner ones fully developed, 0.7–0.8 mm long, 4 outer ones smaller and undeveloped. Ovaries usually 11 or 12, glabrous, curved inwards. Stigma capitate. Ovules 2 or 3. Ripe monocarps red, subglobular, 9–15 mm × 10–14 mm, stipes 5–7 mm long. Seeds 1 or 2, ellipsoid if single or deformed on one face if paired. **Figs 1 & 2.**

Specimens examined: Northern Territory. Gunn Point area, 12°09'S, 131°03'E, Nov 1978, *Rankin* 1578 (DNA); beach just W of mouth of E Alligator River, 12°12'S, 132°15'E, May 1978, *Webb & Tracey* 12199 (BRI); 5 km W of Oenpelli, 12°20', 133°00', May 1980, *Smythe* AQ349458 (BRI); Cannon Hill, Dec 1972, *Byrnes* 2838 (DNA); near Cahill's Crossing, E Alligator River, 12°30'S, 133°00'E, May 1978, *Webb & Tracey* 12498 (BRI); S Alligator Motor Inn, SE corner of Kapalaga, on Arnhem Land highway, May 1978, *Webb & Tracey* 12497 (BRI); Granite Hill, NW of Gwyder, 12°50'S, 131°32'E, May 1978, *Webb & Tracey* 12496 (BRI); Mt Bunday ore area, Oct 1968, *Byrnes* 940 (DNA); Mt Bunday Mine area, Dec 1968, *Byrnes* 1203 (DNA); Koolpin Creek, 13°29'S, 132°25'E, Nov 1978, *Rankin* 1623 (DNA); 35 km N along Pine Creek–Jabiru road, 13°41'S, 132°02'E, Dec 1983, *Russel-Smith* 868 (BRI); Limestone Arch, Douglas River, 13°47'S, 131°20'E, Oct 1974, *Parker* 509 (BRI, DNA); Daly River at Claravale, 14°22'S, 131°33'E, Dec 1978, *Rankin* 1675 (DNA); 16 mile Cave Reserve, S of Katherine, 14°45'S, 132°20'E, May 1978, *Webb & Tracey* 12193 (BRI). Queensland. COOK DISTRICT: Bamaga, Cape York Peninsula, in 1962, *Webb & Tracey* 8029 (BRI); Batavia (Wenlock) River, no date, *Hey* 230 (BRI); Evans Landing road to Lake Patricia, Weipa, 12°29'S, 141°50'E, Nov 1986, *Jessup* 820 (BRI); Portland Roads, 12°36'S, 143°24'E, Oct 1983, *Sankowsky* 275 & *Sankowsky* (BRI); Chili Beach track off Portland Road, 12°39'S, 143°23'E, Nov 1986, *Jessup* 774 (BRI); Weipa Concession, Marmoss Creek, 12°40'S, 142°05'E, Sep 1974, *Dockrill* 854 (BRI, QRS); Myall Creek crossing on main Weipa road, E of Weipa, 12°44'S, 142°15'E, Nov 1986, *Jessup* 822 (BRI); Merluna Downs Station, 50 miles [80 km] S of Weipa, in 1962, *Webb & Tracey* 7897 (BRI); Aurukun Mission Station, Oct 1962, *Webb & Tracey* 7037 (BRI); Archer River, 13°25'S, 142°10'E, Sep 1974, *Hyland* 7588 (BRI, QRS); 13°26'S, 142°57'E, Oct 1983, *Sankowsky* 253 & *Sankowsky* (BRI); 13°27'S, 142°58'E, Nov 1986, *Jessup* 831 (BRI); Peach Creek crossing on Coen–Leo Creek Road, 13°40'S, 143°10'E, Oct 1969, *Webb & Tracey* 9970 (BRI); Archer Bend, Archer River, 13°50'S, 142°11'E, Sep 1974, *Tracey* 14249 (BRI); Archer River, Merapah Station, Sep 1981, *Smyth* MP22.3 (BRI); T.R. 14 Massy, 13°54'S, 143°25'E, Nov 1980, *Hyland* 10908 (BRI, QRS); near T.R. 9 (Lankelly Creek–Pandanus Creek), 13°55'S, 143°20'E, Sep 1971, *Hyland* 2536 R.F.K. (BRI, QRS); Massy Creek, 13°55'S, 143°33'E, Nov 1980, *Hyland* 10927 (BRI, QRS); 1 km S of Cape Keerweer, 13°56'S, 141°28'E, Oct 1978,

Smyth AK52.1 (BRI); near Coen, Cape York Peninsula, in 1962, *Webb & Tracey* 8034 (BRI, QRS); Stewart River, 13°59'S, 143°14'E, Nov 1986, *Jessup* 834 (BRI); 10km S of Xmas Creek, S of Holroyd River, 14°24'S, 141°34'E, Sep 1974, *Tracey* 14247 (BRI); just N of Musgrave on Peninsula Development Road, 14°46'S, 143°30'E, Nov 1986, *Jessup* 835 (BRI); Laura River crossing just S of old Laura Station Homestead, 15°21'S, 144°27'E, Oct 1981, *Tracey* 14040 (BRI).

Habitat and Distribution: This species is found in semi-evergreen and semideciduous mesophyll and notophyll vine forests and deciduous vine thickets mostly on alluvial soils along river banks or on red earths or associated with granite outcrops. It is distributed in NE Northern Territory and in Queensland from Cape York Peninsula S to around Lakeland Downs.

Affinities: This species differs from the other two Australian species by the much fewer stamens and carpels, mostly fewer ovules in each ovary and markedly different perianth. It does not appear to be closely related to any named species in the Malesian region.

Etymology: I have much pleasure in naming this species after Mr J.G. (Geoff) Tracey whose early encouragement and advice was instrumental in my undertaking taxonomic studies of Annonaceae.

Excluded Species

Miliusa bidwillii (Benth.) R.E. Fries, *Ark. Bot. n.s.* 3: 42 (1955), based on *Saccopetalum bidwillii* Benth., *Fl. austral.* 1: 53 (1863). This is *Fitzalania heteropetala* (F. Muell.) F. Muell.

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